Application No.: 10/522,523

Attorney Docket No.: Q85512

I

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

- 1. (canceled).
- 2. (canceled).
- 3. (currently amended): Diamine compounds represented by the general formula I:

$$H_2N$$
 A^1
 A^2
 NH_2

wherein A^1 and A^2 each independently represent a mesogen group represented by general formula II:

$$\cdots S^{\frac{1}{n}} \left[C^{\frac{1}{n}}Z^{\frac{1}{n}}\right]_{n1} \left[C^{\frac{2}{n}}Z^{\frac{2}{n}}\right]_{n2} \left[C^{\frac{3}{n}}\right]_{n3} D$$

wherein

C¹ to C³ each independently represent an aromatic or an alicyclic group, which is unsubstituted or mono- or poly-substituted by a cyano group or by halogen atoms, or by a cyclic, straight-chain or branched alkyl residue which is unsubstituted,

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mono- or poly-substituted by fluorine, chlorine, having 1 to 18 carbon atoms, or by a cyclic, straight-chain or branched alkyl residue which is unsubstituted. mono- or poly-substituted by fluorine, chlorine, having 1 to 18 carbon atoms. wherein one or more non-adjacent -CH₂- groups may is independently be replaced by a group B;

D

represents a hydrogen atom, a halogen atom, a cyano group, or a straight-chain or branched alkyl residue which is unsubstituted, mono-substituted by cyano or fluorine, chlorine, or poly-substituted by fluorine, chlorine, having 1 to 24 carbon atoms, or a straight-chain or branched alkyl residue which is unsubstituted, monosubstituted by cyano or fluorine, chlorine, or poly-substituted by fluorine. chlorine, having 1 to 24 carbon atoms, wherein one or more non-adjacent -CH₂groups may is independently be replaced by a group B, or represents a organic group having a steroid skeleton;

S1

represents a single bond or a spacer unit such a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by a cyano group or by halogen atoms, having 1 to 24 carbon atoms, or a spacer unit such a straight-chain or branched alkylene group which is unsubstituted, mono or polysubstituted by a cyano group or by halogen atoms, having 1 to 24 carbon atoms, wherein one or more non-adjacent -CH₂- groups-may is independently-be replaced by a group B;

Z1, Z2

each independently of the other represent a single bond or a spacer unit such a straight-chain or branched alkylene group which is unsubstituted, mono or polysubstituted by a cyano group or by halogen atoms, having 1 to 8 carbon

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atoms or a spacer unit such a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by a cyano group or by halogen atoms, having 1 to 8 carbon atoms, wherein one or more non-adjacent -CH₂- groups-may is independently-be replaced by a group B;

n1 to n3 are each independently 0 or 1; and

B represents a group selected from -O-, -CO-, -CO-O-, -O-CO-, -NR¹-, -NR¹-CO-, -CO-NR¹-, -NR¹-CO-O-, -O-CO-NR¹-, -NR¹-CO-NR¹-, -CH=CH-, -C≡C-, -O-CO-O- and -Si(CH₃)₂-O-Si(CH₃)₂- and wherein R¹ represents a hydrogen atom or a straight chain or branched hydrocarbon radical having from 1 to 6 carbon atoms lower alkyl,

which is unsubstituted, mono-substituted by cyano or fluorine, chlorine, or poly-substituted by fluorine, chlorine, having 5 to 24 carbon atoms or a straight-chain or branched alkyl residue which is unsubstituted, mono-substituted by cyano or fluorine, chlorine, or poly-substituted by which is unsubstituted, mono-substituted by cyano or fluorine, chlorine, or poly-substituted by fluorine, chlorine, having 5 to 24 carbon atoms, wherein one or more non-adjacent -CH₂- groups may is independently be replaced by a group B, or represents a organic group having a steroid skeleton.

4. (previously presented): Diamine compounds according to claim 3, wherein C¹ to C³ are selected from pyrimidine-2,5-diyl, pyridine-2,5-diyl, 1,4- or 2,6-naphthylene, decahydronaphthalin-2,6-diyl, 1,2,3,4-tetrahydronaphthalin-2,6-diyl, cyclohexane-1,4-diyl and 1,4-phenylene, which is unsubstituted or substituted by a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly-substituted by fluorine, chlorine having from 1 to

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12 carbon atoms in which optionally one or more non-adjacent -CH₂- groups are replaced by -O-, -CO-, -CO-O-, -O-CO-, -CH=CH- and -C≡C-.

- 5. (previously presented): Diamine compounds according to claim 3, wherein C¹ to C³ are selected from cyclohexane-1,4-diyl and 1,4-phenylene, which is unsubstituted or substituted by a cyclic, straight-chain or branched alkyl residue having 1 to 12 carbon atoms in which optionally one or more non-adjacent -CH₂- groups are replaced by -O-, -CO-, -CO-O-, -O-CO-, -CH=CH- and -C≡C-.
- 6. (currently amended): Diamine compounds according to claim 3, wherein D is a hydrogen atom, a fluoro atom, a chloro atom, a cyano group, a straight-chain or branched alkyl residue which is unsubstituted, mono-substituted by cyano or fluorine, chlorine, or polysubstituted by fluorine, chlorine, having 1 to 18 carbon atoms or a straight-chain or branched alkyl residue which is unsubstituted, mono-substituted by cyano or fluorine, chlorine, or polysubstituted by fluorine, chlorine, having 1 to 18 carbon atoms, wherein one or more non-adjacent-CH₂- groups-may is independently-be replaced by -O-, -CO-, -CO-O-, -O-CO-, -NR¹-CO-, -CO-NR¹-, -NR¹-CO-O-, -O-CO-NR¹-, -CH=CH-, -C=C- and -O-CO-O-, wherein R¹ represents a hydrogen atom or-lower alkyl a straight chain or branched hydrocarbon radical having from 1 to 6 carbon atoms, or represents an organic group having a steroid skeleton.
- 7. (currently amended): Diamine compounds according to claim 3, wherein D is a hydrogen atom, a fluoro atom, a chloro atom, a cyano group, a straight-chain or branched alkyl residue, having 1 to 12 carbon atoms or a straight-chain or branched alkyl residue, having 1 to 12 carbon atoms, wherein one or more non-adjacent -CH₂- groups-may is independently-be replaced by -O-, -CO-, -CO-O-, -C-CO-, -CH=CH-, -C=C- and -O-CO-O-.

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8. (currently amended): Diamine compounds according to claim 3, wherein S¹ is selected from a single covalent bond, -CO-O-, -CO-NR¹-, -CO-, a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by fluorine, chlorine and cyano, having 1 to 24 carbon atoms, and a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by fluorine, chlorine and cyano, having 1 to 24 carbon atoms, wherein one or more non-adjacent -CH₂- groups-may is independently-be replaced by a group B, wherein R¹ represents a hydrogen atom or-lower-alkyl a straight chain or branched hydrocarbon radical having from 1 to 6 carbon atoms.

- 9. (currently amended): Diamine compounds according to claim 3, wherein S¹ is selected from a single covalent bond, -CO-O-, -CO-, -(CH₂)_r-, -(CH₂)_r-O-, -(CH₂)_r-CO-, -(CH₂)_r-CO-, -(CH₂)_r-CO-O-, -(CH₂)_r-CO-O-, -(CH₂)_r-CO-NR¹-, -(CH₂)_r-NR¹-CO-, -(CH₂)_r-NR¹-, -CO-O-(CH₂)_r-, -CO-NR¹-(CH₂)_r-O-CO-, -CO-NR¹-(CH₂)_r-O-, -CO-NR¹-(CH₂)_r-O-CO-, -(CH₂)_r-O-(CH₂)_s-, -(CH₂)_r-CO-O-(CH₂)_s-, -(CH₂)_r-CO-O-(CH₂)_s-, -(CH₂)_r-NR¹-CO-O-(CH₂)_s-, -(CH₂)_r-O-CO-(CH₂)_s-O-, -(CH₂)_r-O-CO-(CH₂)_s-O-, -(CH₂)_r-O-CO-(CH₂)_s-O-, -(CH₂)_r-O-CO-(CH₂)_s-O-, -(CH₂)_r-O-CO-(CH₂)_s-O-, -(CH₂)_r-O-CO-(CH₂)_s-O-, -(CH₂)_r-O-(CH₂)_s-O-, -(CH₂)_s-O-, -(CH
- 10. (previously presented): Diamine compounds according to claim 3, wherein S¹ is selected from a single covalent bond, $-(CH_2)_r$, $-(CH_2)_r$ -O-, $-(CH_2)_r$ -CO-O-, $-(CH_2)_r$ -CO-NH-, $-(CH_2)_r$ -NH-CO-, $-(CH_2)_r$ -, $-(CH_2)_r$ -,

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-CO-NH-(CH₂)_r-O-, -(CH₂)_r-NH-CO-(CH₂)_s-, -(CH₂)_r-NH-CO-O-(CH₂)_s-, -(CH₂)_r-O-(CH₂)_s-O-, -(CH₂)_r-NH-CO-(CH₂)_s-O-, -(CH₂)_r-NH-CO-(CH₂)_s-O-, -(CH₂)_r-NH-CO-(CH₂)_s-O-, wherein r and s each represent an integer from 1 to 12 and $r + s \le 15$.

11. (currently amended): Diamine compounds according to claim 3, wherein S¹ include 1,2-ethylene, 1,3-propylene, 1,4-butylene, 1,5-pentylene, 1,6-hexylene, 1,7-heptylene, 1.8-octylene, 1.9-nonylene, 1.10-decylene, 1.11-undecylene, 1.12-dodecylene, 3-methyl-1,4-butylene, 2-(methylenoxy)ethylene, 3-(methylenoxy)propylene, 4-(methylenoxy)butylene, 5-(methylenoxy)pentylene, 6-(methylenoxy)hexylene, 7-(methylenoxy)heptylene, 8-(methylenoxy)octylene, 9-(methylenoxy)nonylene, 10-(methylenoxy)decylene, 11-(methylenoxy)undecylene, 12-(methylenoxy)dodecylene, 2-(carbonyloxy)ethylene, 3-(carbonyloxy)propylene, 4-(carbonyloxy)butylene, 5-(carbonyloxy)pentylene, 6-(carbonyloxy)hexylene, 7-(carbonyloxy)heptylene, 8-(carbonyloxy)octylene, 9-(carbonyloxy)nonylene, 10-(carbonyloxy)decylene, 11-(carbonyloxy)undecylene, 12-(carbonyloxy)dodecylene, 2-(carbonylamino)ethylene, 3-(carbonylamino)propylene, 4-(carbonylamino)butylene, 5-(carbonylamino)pentylene, 6-(carbonylamino)hexylene, 7-(carbonylamino)heptylene, 8-(carbonylamino)octylene, 9-(carbonylamino)nonylene, 10-(carbonylamino)decylene, 11-(carbonylamino)undecylene, 12-(carbonylamino)dodecylene, 3-propyleneoxy, 3-propyleneoxycarbonyl, 2-ethylenoyloxy, 4-butyleneoxy, 4-butyleneoxycarbonyl, 3-propylenoyloxy, 5-pentyleneoxy, 5-pentyleneoxycarbonyl, 4-butylenovloxy, 6-hexyleneoxy, 6-hexyleneoxycarbonyl, 5-pentylenovloxy, 7-heptyleneoxy, 7-heptyleneoxy, 8-octyleneoxy,

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8-octyleneoxycarbonyl, 7-heptylenoyloxy, 9-nonyleneoxy, 9-nonyleneoxycarbonyl,

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8-octylenoyloxy, 10-decyleneoxy, 10-decyleneoxycarbonyl, 9-nonylenoyloxy,

11-undecyleneoxy, 11-undecyleneoxycarbonyl, 10-decylenoyloxy, 12-dodecyleneoxy,

12-dodecyleneoxycarbonyl, 11-undecylenoyloxy, 3-propyleneaminocarbonyl,

4-butyleneaminocarbonyl, 5-pentyleneaminocarbonyl, 6-hexyleneaminocarbonyl,

7-heptyleneaminocarbonyl, 8-octyleneaminocarbonyl, 9-nonyleneaminocarbonyl,

10-decyleneaminocarbonyl, 11-undecyleneaminocarbonyl, 12-dodecyleneaminocarbonyl,

2-ethylenecarbonylamino, 3-propylenecarbonylamino, 4-butylenecarbonylamino,

5-pentylenecarbonylamino, 6-hexylenecarbonylamino, 7-heptylenecarbonylamino,

8-octylenecarbonylamino, 9-nonylenecarbonylamino, 10-decylenecarbonylamino,

11-undecylenecarbonylamino, 2-(methylenoxy)ethanoyloxy, 3-(methylenoxy)propyloxy,

3-(methylenoxy)propyloxycarbonyl, 4-(methylenoxy)butyloxy,

4-(methylenoxy)butyloxycarbonyl, 3-(methylenoxy)propanoyloxy, 5-(methylenoxy)pentyloxy,

5-(methylenoxy)pentyloxycarbonyl, 4-(methylenoxy)butanoyloxy, 6-(methylenoxy)hexyloxy,

6-(methylenoxy)hexyloxycarbonyl, 5-(methylenoxy)pentanoyloxy, 7-(methylenoxy)heptyloxy,

7-(methylenoxy)heptyloxycarbonyl, 6-(methylenoxy)hexanoyloxy, 8-(methylenoxy)octyloxy,

8-(methylenoxy)octyloxycarbonyl, 7-(methylenoxy)heptanoyloxy, 9-(methylenoxy)nonyloxy,

9-(methylenoxy)nonyloxycarbonyl, 8-(methylenoxy)octanoyloxy, 10-(methylenoxy)decyloxy,

10-(methylenoxy)decyloxycarbonyl, 9-(methylenoxy)nonanoyloxy,

11-(methylenoxy)undecyloxy, 11-(methylenoxy)undecyloxycarbonyl,

10-(methylenoxy)decanoyloxy, 12-(methylenoxy)dodecyloxy,

12-(methylenoxy)dodecyloxycarbonyl, 11-(methylenoxy)undecanoyloxy,

3-(methylenoxy)propylaminocarbonyl, 4-(methylenoxy)butylaminocarbonyl,

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5-(methylenoxy)pentylaminocarbonyl, 6-(methylenoxy)hexylaminocarbonyl,

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7-(methylenoxy)heptylaminocarbonyl, 8-(methylenoxy)octylaminocarbonyl,

9-(methylenoxy)nonylaminocarbonyl, 10-(methylenoxy)decylaminocarbonyl,

11-(methylenoxy)undecylaminocarbonyl, 12-(methylenoxy)dodecylaminocarbonyl,

2-(methylenoxy)ethanoylamino, 3-(methylenoxy)propanoylamino,

4-(methylenoxy)butanoylamino, 5-(methylenoxy)pentanoylamino,

6-(methylenoxy)hexanovlamino, 7-(methylenoxy)heptanovlamino,

8-(methylenoxy)octanoylamino, 9-(methylenoxy)nonanoylamino,

10-(methylenoxy)decanoylamino, 11-(methylenoxy)undecanoylamino, 12-

(methylenoxy)dodecylaminocarbonyl, 2-(carbonyloxy)ethanoyloxy, 3-(carbonyloxy)propyloxy,

3-(carbonyloxy)propyloxycarbonyl, 4-(carbonyloxy)butyloxy, 4-(carbonyloxy)butyloxycarbonyl,

3-(carbonyloxy)propanoyloxy, 5-(carbonyloxy)pentyloxy, 5-(carbonyloxy)pentyloxycarbonyl,

4-(carbonyloxy)butanoyloxy, 6-(carbonyloxy)hexyloxy, 6-(carbonyloxy)hexyloxycarbonyl,

5-(carbonyloxy)pentanoyloxy, 7-(carbonyloxy)heptyloxy, 7-(carbonyloxy)heptyloxycarbonyl,

6-(carbonyloxy)hexanoyloxy, 8-(carbonyloxy)octyloxy, 8-(carbonyloxy)octyloxycarbonyl,

7-(carbonyloxy)heptanoyloxy, 9-(carbonyloxy)nonyloxy, 9-(carbonyloxy)nonyloxycarbonyl,

8-(carbonyloxy)octanovloxy, 10-(carbonyloxy)decyloxy, 10-(carbonyloxy)decyloxycarbonyl,

9-(carbonyloxy)nonanoyloxy, 11-(carbonyloxy)undecyloxy,

11-(carbonyloxy)undecyloxycarbonyl, 10-(carbonyloxy)decanoyloxy.

12-(carbonyloxy)dodecyloxy, 12-(carbonyloxy)dodecyloxycarbonyl,

11-(carbonyloxy)undecanoyloxy, 3-(carbonyloxy)propylaminocarbonyl,

4-(carbonyloxy)butylaminocarbonyl, 5-(carbonyloxy)pentylaminocarbonyl,

6-(carbonyloxy)hexylaminocarbonyl, 7-(carbonyloxy)heptylaminocarbonyl,

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8-(carbonyloxy)octylaminocarbonyl, 9-(carbonyloxy)nonylaminocarbonyl,

10-(carbonyloxy)decylaminocarbonyl, 11-(carbonyloxy)undecylaminocarbonyl,

12-(carbonyloxy)dodecylaminocarbonyl, 2-(carbonyloxy)ethanoylamino,

3-(carbonyloxy)propanoylamino, 4-(carbonyloxy)butanoylamino,

5-(carbonyloxy)pentanoylamino, 6-(carbonyloxy)hexanoylamino,

7-(carbonyloxy)heptanoylamino, 8-(carbonyloxy)octanoylamino,

9-(carbonyloxy)nonanoylamino, 10-(carbonyloxy)decanoylamino,

11-(carbonyloxy)undecanoylamino, 12-(carbonyloxy)dodecylaminocarbonyl

6-(3-propyleneaminocarbonyloxy)hexylene, 6-(3-propyleneoxy)hexylene,

6-(3-propyleneoxy)hexyloxy, 6-(3-propyleneaminocarbonyloxy)hexyloxy,

6-(3-propyleneaminocarbonyl)hexyl, 6-(3-propyleneaminocarbonyl)hexyloxy,

2-(1-methyleneoxy)ethyloxycarbonyloxy, 3-(1-methyleneoxy)propyloxycarbonyloxy,

6-(1-methyleneoxy)hexyloxycarbonyloxy, 2-(1-methyleneoxycarbonyl)ethylene,

3-(1-methyleneoxycarbonyl)propyloxycarbonyloxy,

6-(1-methyleneoxycarbonyl)hexyloxycarbonyloxy, 6-(3-propyleneoxycarbonyloxy)hexylene,

6-(3-propyleneoxycarbonyl)hexylene, 2-(1-methyleneaminocarbonyl)ethylene,

3-(1-methyleneaminocarbonyl)propylene, 6-(1-methyleneaminocarbonyl)hexylene, and

6-(3-propyleneaminocarbonyloxy)hexylene, 6-(3-propyleneaminocarbonyl)hexylene-and the

like.

12. (currently amended): Diamine compounds according to claim 3, wherein Z¹ and Z² are selected form from a single covalent bond, a spacer unit such as a straight-chain or branched alkylene group, which is unsubstituted, mono or poly-substituted by fluoro atoms, having 1 to 8 carbon atoms, or and a spacer unit such as a straight-chain or branched alkylene

group, which is unsubstituted, mono or poly-substituted by fluoro atoms, having 1 to 8 carbon atoms, wherein one or more non-adjacent -CH₂- groups-may is independently-be replaced by a group selected from -O-, -CO-, -CO-O-, -O-CO-, -NR¹-CO-, -CO-NR¹-, -CH=CH-, -C=C-, and wherein R¹ represents a hydrogen atom or-lower alkyl a straight chain or branched hydrocarbon radical having from 1 to 6 carbon atoms.

- Z² are selected—form from a single covalent bond, a spacer unit such a straight-chain or branched alkylene group having 1 to 4 carbon atom, and-or a spacer unit such a straight-chain or branched alkylene group having 1 to 4 carbon atoms, wherein one or two non-adjacent -CH₂- groups—may is independently—be replaced by a group selected from -O-, -CO-, -CO-O-, -O-CO-.
- 14. (previously presented): Diamine compounds according to claim 3, wherein n2 = 1 and n3 = 1.
- 15. (previously presented): Diamine compounds according to claim 3, wherein n1 = 0 with n2 = 1 and n3 = 1.
- 16. (previously presented): Diamine compounds according to claim 3, wherein D is an organic group having a steroid skeleton if n1+n2+n3=0.
- 17. (previously presented): Diamine compounds according to claim 3, wherein the steroid skeleton is a 3-cholesteryl or a 3-cholestaryl residue.
 - 18. (previously presented): Diamine compounds represented by the general formula I:

$$H_2N$$
 A^1
 A^2
 NH_2

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wherein A^1 and A^2 each independently represent a photoreactive group which can be photoisomerized and/or photodimerized on exposure to UV or laser light.

- 19. (original): Diamine compounds according to claim 18, wherein the photoreactive groups are able to undergo photocyclization, in particular [2+2]-photocyclization.
- 20. (previously presented): Diamine compounds according to claim 18, wherein the photoreactive groups are sensitive to UV or laser light, in particular linearly polarized UV light.
- 21. (currently amended): Diamine compounds according to claim 18, wherein the photoreactive groups include cinnamates, benzylidenephthalimidines, benzylideneacetophones, diphenylacetylenes stilbazoles, uracyl, quinolinone, maleinimides, or cinnamylidene acetic acid derivatives, particularly preferred groups are cinnamates, coumarins, benzylideneacetophenones, or maleinimides.
- 22. (currently amended): Diamine compounds according to claim 18, wherein the photoreactive groups are represented by general formulae IIIa and IIIb:

$$-\cdots$$
 S^2 E V F Illa

wherein

Е

F

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represents pyrimidine-2,5-diyl, pyridine-2,5-diyl, 2,5-thiophenylene,
2,5-furanylene, 1,4- or 2,6-naphthylene, or phenylene, which is unsubstituted or
mono- or poly-substituted by fluorine, chlorine, by a cyclic, straight-chain or
branched alkyl residue which is unsubstituted, mono- or poly-substituted by
fluorine, chlorine, having 1 to 18 carbon atoms, or by a cyclic, straight-chain or
branched alkyl residue which is unsubstituted mono- or poly-substituted by
fluorine, chlorine, having 1 to 18 carbon atoms, wherein one or more nonadjacent -CH₂- groups-may is independently be replaced by a group B as defined
hereinabove:

represents –OR², -NR³R⁴ or an oxygen atom, which defines together with the ring E a coumarin unit, wherein R², R³ and R⁴ are selected from hydrogen, a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly-substituted by fluorine, chlorine, having 1 to 24 carbon atoms, a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly-substituted by fluorine, chlorine, having 1 to 24 carbon atoms, wherein one or more non-adjacent -CH₂- groups may is independently be replaced by a group J, or R³ and R⁴ together form a C₅₋₈ alicyclic ring; wherein

J represents a group selected from -O-, -CO-, -CO-O-, -O-CO-, -NR¹-,
-NR¹-CO-, -CO-NR¹-, -NR¹-CO-O-, -O-CO-NR¹-, -NR¹-CO-NR¹-,
-CH=CH-, -C≡C-, -O-CO-O- and -Si(CH₃)₂-O-Si(CH₃)₂-, an aromatic or
an alicyclic group, and wherein R¹ represents a hydrogen atom or-lower

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alkyl a straight chain or branched hydrocarbon radical having from 1 to 6 carbon atoms;

G

represents a hydrogen atom, or a halogen atom, a straight-chain or branched alkyl group which is unsubstituted, mono or poly-substituted by cyano, fluorine, chlorine, having 1 to 24 carbon atoms, or a straight-chain or branched alkyl group which is unsubstituted, mono or poly-substituted by cyano, fluorine, chlorine, having 1 to 24 carbon atoms, wherein one or more -CH₂- groups-may is independently-be replaced by a group J, with the proviso that oxygen atoms are not directly attached to each other;

- S^2, S^3
- each independently of the other represent a single bond, a spacer unit such as a straight-chain or branched alkylene group which is unsubstituted, mono or polysubstituted by fluorine, chlorine, or cyano, having 1 to 40 carbon atoms, or a spacer unit such as a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by fluorine, chlorine, or cyano, having 1 to 40 carbon atoms, wherein one or more -CH₂- groups may is independently be replaced by a group J, with the proviso that oxygen atoms are not directly attached to each other;

Q

represents an oxygen atom or -NR¹- wherein R¹ represents a hydrogen atom or lower alkyl a straight chain or branched hydrocarbon radical having from 1 to 6 carbon atoms;

X, Y

each independently of the other represents hydrogen, fluorine, chlorine, cyano, alkyl optionally substituted by fluorine having 1 to 12 carbon atoms in which

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optionally one or more non-adjacent alkyl -CH₂- groups are replaced by -O-, -CO-O-, -O-CO- and/or -CH=CH-.

- 23. (original): Diamine compounds according to claim 22, wherein E is selected from pyrimidine-2,5-diyl, pyridine-2,5-diyl, 2,5-thiophenylene, 2,5-furanylene, 1,4- or 2,6-naphthylene and phenylene, which is unsubstituted or substituted by a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly-substituted by fluorine, chlorine having 1 to 12 carbon atoms in which optionally one or more non-adjacent alkyl -CH₂- groups are replaced by -O-, -CO-, -CO-O-, -O-CO-, -CH=CH- and -C=C-.
- 24. (previously presented): Diamine compounds according to claim 22, wherein E is selected from 2,5-furanylene, 1,4- or 2,6-naphthylene and phenylene, which is unsubstituted or substituted by a cyclic, straight-chain or branched alkyl residue having 1 to 12 carbon atoms in which optionally one or more non-adjacent alkyl -CH₂- groups are replaced by -O-, -CO-, -CO-, -CO-, -CH=CH- and -C≡C-.
- 25. (currently amended): Diamine compounds according to claim 22, wherein F is selected from -OR² and -NR³R⁴, wherein R² and R³ represent a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly-substituted by fluorine, chlorine, cyano, having 1 to 18 carbons atoms or a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly- substituted by fluorine, chlorine, cyano, having 1 to 18 carbons atoms, wherein one or more non-adjacent alkyl -CH₂- groups-may is independently-be replaced by -O- or -CH=CH-, wherein R⁴ is selected from a hydrogen atom, a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly-substituted by fluorine, chlorine, cyano, having 1 to 18 carbons atoms or a cyclic, straight-chain or branched alkyl residue which is

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unsubstituted, mono- or poly- substituted by fluorine, chlorine, cyano, having 1 to 18 carbons atoms, wherein one or more non-adjacent -CH₂₋ groups-may is independently-be replaced by -O- or -CH=CH-, or R⁴ and R⁵ together to form a C₅₋₈ alicyclic ring.

- 26. (currently amended): Diamine compounds according to claim 22, wherein F is selected from the group comprising –OR² or –NHR³, wherein R² and R³ represent a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly-substituted by fluorine atoms, having 1 to 18 carbon atoms or a cyclic, straight-chain or branched alkyl residue which is unsubstituted, mono- or poly- substituted by fluorine atoms, having 1 to 18 carbon atoms, wherein one or more non-adjacent -CH₂- groups may is independently replaced by -O-.
- 27. (currently amended): Diamine compounds according to claim 22, wherein G is a hydrogen atom, or fluorine atom, or chlorine atom, a straight-chain or branched alkyl group which is unsubstituted, mono-substituted by cyano, fluorine or chlorine or poly-substituted by fluorine, chlorine, having 1 to 18 carbon atoms, or a straight-chain or branched alkyl group which is unsubstituted, mono-substituted by cyano, fluorine or chlorine or poly-substituted by fluorine, chlorine, having 1 to 18 carbon atoms, wherein one or more -CH₂- groups-may is independently-be replaced -O-, -CO-, -CO-O-, -O-CO-, -NR¹-, -NR¹-CO-, -CO-NR¹-, -NR¹-CO-, -CO-NR¹-, -NR¹-CO-O-, an aromatic or an alicyclic group, with the proviso that oxygen atoms are not directly attached to each other, and wherein R¹ represents a hydrogen atom or-lower alkyl a straight chain or branched hydrocarbon radical having from 1 to 6 carbon atoms.
- 28. (currently amended): Diamine compounds according to claim 22, wherein G is a hydrogen atom, a straight-chain or branched alkyl group having 1 to 18 carbon atoms, or a

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straight-chain or branched alkyl group having 1 to 18 carbon atoms, wherein one or more non-adjacent -CH₂- groups may is independently be replaced -O-, -CO-, -CO-O-, -O-CO-, -NR¹-, -NR¹-CO-, -CO-NR¹-, and -O-CO-O-, with the proviso that oxygen atoms are not directly attached to each other, and wherein R¹ represents a hydrogen atom or lower alkyl a straight chain or branched hydrocarbon radical having from 1 to 6 carbon atoms.

- 29. (currently amended): Diamine compounds according to claim 22, wherein S² is selected from a single covalent bond, -CO-O-, -CO-NR¹-, -CO-, a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by fluorine, chlorine, or cyano, having 1 to 24 carbon atoms, and a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by fluorine, chlorine, or cyano, having 1 to 24 carbon atoms, wherein one or more -CH₂- groups-may is independently-be replaced by a group J, with the proviso that oxygen atoms are not directly attached to each other, wherein R¹ represents a hydrogen atom or lower alkyl a straight chain or branched hydrocarbon radical having from 1 to 6 carbon atoms.
- 30. (currently amended): Diamine compounds according to claim 22, wherein S² is selected from a single covalent bond, -CO-O-, -CO-, -(CH₂)_r-, -(CH₂)_r-O-, -(CH₂)_r-CO-, -(CH₂)_r-CO-O-, -(CH₂)_r-CO-NR¹-, -CO-O-(CH₂)_r-O-, -(CH₂)_r-NR¹-CO-, -(CH₂)_r-NR¹-, -CO-O-(CH₂)_r-, -CO-NR¹-(CH₂)_r-, -CO-NR¹-(CH₂)_r-O-, -(CH₂)_r-O-, -(CH₂)_r-O-(CH₂)_s-, -(CH₂)_r-CO-O-(CH₂)_s-, -(CH₂)_r-CO-O-(CH₂)_s-, -(CH₂)_r-CO-O-(CH₂)_s-, -(CH₂)_r-O-CO-(CH₂)_s-, -(CH₂)_r-O-CO-(CH₂)_s-, -(CH₂)_r-O-CO-(CH₂)_s-, -(CH₂)_r-O-CO-(CH₂)_s-, -(CH₂)_r-CO-O-(CH₂)_s-, -(CH₂)_r-O-CO-(CH₂)_s-O-, -

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-(CH₂)_r-NR¹-CO-(CH₂)_s-O-, -(CH₂)_r-NR¹-CO-O-(CH₂)_s-O-, -CO-O-(CH₂)_r-O-(CH₂)_s- and -CO-O-(CH₂)_r-O-(CH₂)_s-O-, wherein R¹ is as defined above, r and s each represent an integer from 1 to 20, preferably from 1 to 12, and $r + s \le 21$, preferably ≤ 15 .

- 31. (previously presented): Diamine compounds according to claim 22, wherein S^2 is selected from a single covalent bond, $-(CH_2)_{r^-}$, $-(CH_2)_{r^-}$ O-, $-(CH_2)_{r^-}$ CO-O-, $-(CH_2)_{r^-}$ O-CO-, $-(CH_2)_{r^-}$ NH-CO-, $-(CH_2)_{r^-}$ NH-CO-, $-(CH_2)_{r^-}$, $-(CH_2)_{r^-}$, $-(CH_2)_{r^-}$, $-(CH_2)_{r^-}$ NH-CO-($-(CH_2)_{s^-}$), $-(CH_2)_{r^-}$ NH-CO-($-(CH_2)_{s^-}$), $-(CH_2)_{r^-}$ NH-CO-($-(CH_2)_{s^-}$), $-(CH_2)_{r^-}$ NH-CO-($-(CH_2)_{s^-}$), $-(CH_2)_{r^-}$ NH-CO-($-(CH_2)_{s^-}$), wherein $-(CH_2)_{s^-}$).
- 32. (currently amended): Diamine compounds according to claim 22, wherein S² include 1,2-ethylen, 1,3-propylen, 1,4-butylen, 1,5-pentylen, 1,6-hexylen, 1,7-heptylen, 1,8-octylen, 1,9-nonylen, 1,10-decylen, 1,11-undecylen, 1,12-dodecylen, 3-methyl-1,4-butylen, 2-(methylenoxy)ethylen, 3-(methylenoxy)propylen, 4-(methylenoxy)butylen, 5-(methylenoxy)pentylen, 6-(methylenoxy)hexylen, 7-(methylenoxy)heptylen, 8-(methylenoxy)octylen, 9-(methylenoxy)nonylen, 10-(methylenoxy)decylen, 11-(methylenoxy)undecylen, 12-(methylenoxy)dodecylen, 2-(carbonyloxy)ethylen, 3-(carbonyloxy)propylen, 4-(carbonyloxy)butylen, 5-(carbonyloxy)pentylen, 6-(carbonyloxy)hexylen, 7-(carbonyloxy)heptylen, 8-(carbonyloxy)undecylen, 10-(carbonyloxy)dodecylen, 11-(carbonyloxy)undecylen, 12-(carbonyloxy)dodecylen, 2-(carbonylamino)ethylen, 3-(carbonylamino)propylen, 4-(carbonylamino)butylen, 5-(carbonylamino)pentylen, 6-(carbonylamino)hexylen,

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7-(carbonylamino)heptylen, 8-(carbonylamino)octylen, 9-(carbonylamino)nonylen, 10-(carbonylamino)decylen, 11-(carbonylamino)undecylen, 12-(carbonylamino)dodecylen, 3-propylenoxy, 3-propylenoxycarbonyl, 2-ethylenoyloxy, 4-butylenoxy, 4-butylenoxycarbonyl, 3-propylenovloxy, 5-pentylenoxy, 5-pentylenoxycarbonyl, 4-butylenoyloxy, 6-hexylenoxy, 6-hexylenoxycarbonyl, 5-pentylenoyloxy, 7-heptylenoxy, 7-heptylenoxycarbonyl, 6-hexylenoyloxy, 8-octylenoxy, 8-octylenoxycarbonyl, 7-heptylenoyloxy, 9-nonylenoxy, 9-nonvlenoxycarbonyl, 8-octylenoyloxy, 10-decylenoxy, 10-decylenoxycarbonyl, 9-nonvlenovloxy, 11-undecylenoxy, 11-undecylenoxycarbonyl, 10-decylenoyloxy, 12-dodecylenoxy, 12-dodecylenoxycarbonyl, 11-undecylenoyloxy, 3-propylenaminocarbonyl, 4-butylenaminocarbonyl, 5-pentylenaminocarbonyl, 6-hexylenaminocarbonyl, 7-heptylenaminocarbonyl, 8-octylenaminocarbonyl, 9-nonylenaminocarbonyl, 10-decylenaminocarbonyl, 11-undecylenaminocarbonyl, 12-dodecylenaminocarbonyl, 2-ethylenovlamino, 3-propylenovlamino, 4-butylenovlamino, 5-pentylenovlamino, 6-hexylenoylamino, 7-heptylenoylamino, 8-octylenoylamino, 9-nonylenoylamino, 10-decylenoylamino, 11-undecylenoylamino, 2-(methylenoxy)ethanoyloxy, 3-(methylenoxy)propyloxy, 3-(methylenoxy)propyloxycarbonyl, 4-(methylenoxy)butyloxy, 4-(methylenoxy)butyloxycarbonyl, 3-(methylenoxy)propanoyloxy, 5-(methylenoxy)pentyloxy, 5-(methylenoxy)pentyloxycarbonyl, 4-(methylenoxy)butanoyloxy, 6-(methylenoxy)hexvloxy, 6-(methylenoxy)hexyloxycarbonyl, 5-(methylenoxy)pentanoyloxy, 7-(methylenoxy)heptyloxy, 7-(methylenoxy)heptyloxycarbonyl, 6-(methylenoxy)hexanoyloxy, 8-(methylenoxy)octyloxy, 8-(methylenoxy)octyloxycarbonyl, 7-(methylenoxy)heptanoyloxy, 9-(methylenoxy)nonyloxy, 9-(methylenoxy)nonyloxycarbonyl, 8-(methylenoxy)octanoyloxy, 10-(methylenoxy)decyloxy, 10-(methylenoxy)decyloxycarbonyl, 9-(methylenoxy)nonanoyloxy,

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11-(methylenoxy)undecyloxy, 11-(methylenoxy)undecyloxycarbonyl,

10-(methylenoxy)decanoyloxy, 12-(methylenoxy)dodecyloxy,

12-(methylenoxy)dodecyloxycarbonyl, 11-(methylenoxy)undecanoyloxy,

3-(methylenoxy)propylaminocarbonyl, 4-(methylenoxy)butylaminocarbonyl,

5-(methylenoxy)pentylaminocarbonyl, 6-(methylenoxy)hexylaminocarbonyl,

7-(methylenoxy)heptylaminocarbonyl, 8-(methylenoxy)octylaminocarbonyl,

9-(methylenoxy)nonylaminocarbonyl, 10-(methylenoxy)decylaminocarbonyl,

11-(methylenoxy)undecylaminocarbonyl, 12-(methylenoxy)dodecylaminocarbonyl,

2-(methylenoxy)ethanoylamino, 3-(methylenoxy)propanoylamino,

4-(methylenoxy)butanoylamino, 5-(methylenoxy)pentanoylamino,

6-(methylenoxy)hexanoylamino, 7-(methylenoxy)heptanoylamino,

8-(methylenoxy)octanoylamino, 9-(methylenoxy)nonanoylamino,

10-(methylenoxy)decanoylamino, 11-(methylenoxy)undecanoylamino, 12-

(methylenoxy)dodecylaminocarbonyl, 2-(carbonyloxy)ethanoyloxy, 3-(carbonyloxy)propyloxy,

 $3\hbox{-}(carbonyloxy) propyloxy carbonyl, 4\hbox{-}(carbonyloxy) butyloxy, 4\hbox{-}(carbonyloxy) butyloxy carbonyl,$

 $3\hbox{-}(carbonyloxy) propanoyloxy, 5\hbox{-}(carbonyloxy) pentyloxy, 5\hbox{-}(carbonyloxy) pentyloxy carbonyl,$

4-(carbonyloxy)butanoyloxy, 6-(carbonyloxy)hexyloxy, 6-(carbonyloxy)hexyloxycarbonyl,

5-(carbonyloxy)pentanoyloxy, 7-(carbonyloxy)heptyloxy, 7-(carbonyloxy)heptyloxycarbonyl,

6-(carbonyloxy)hexanoyloxy, 8-(carbonyloxy)octyloxy, 8-(carbonyloxy)octyloxycarbonyl,

7-(carbonyloxy)heptanoyloxy, 9-(carbonyloxy)nonyloxy, 9-(carbonyloxy)nonyloxycarbonyl,

8-(carbonyloxy)octanoyloxy, 10-(carbonyloxy)decyloxy, 10-(carbonyloxy)decyloxycarbonyl,

9-(carbonyloxy)nonanoyloxy, 11-(carbonyloxy)undecyloxy,

11-(carbonyloxy)undecyloxycarbonyl, 10-(carbonyloxy)decanoyloxy,

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- 12-(carbonyloxy)dodecyloxy, 12-(carbonyloxy)dodecyloxycarbonyl,
- 11-(carbonyloxy)undecanoyloxy, 3-(carbonyloxy)propylaminocarbonyl,
- 4-(carbonyloxy)butylaminocarbonyl, 5-(carbonyloxy)pentylaminocarbonyl,
- 6-(carbonyloxy)hexylaminocarbonyl, 7-(carbonyloxy)heptylaminocarbonyl,
- 8-(carbonyloxy)octylaminocarbonyl, 9-(carbonyloxy)nonylaminocarbonyl,
- 10-(carbonyloxy)decylaminocarbonyl, 11-(carbonyloxy)undecylaminocarbonyl,
- 12-(carbonyloxy)dodecylaminocarbonyl, 2-(carbonyloxy)ethanoylamino,
- 3-(carbonyloxy)propanoylamino, 4-(carbonyloxy)butanoylamino,
- 5-(carbonyloxy)pentanoylamino, 6-(carbonyloxy)hexanoylamino,
- 7-(carbonyloxy)heptanoylamino, 8-(carbonyloxy)octanoylamino,
- 9-(carbonyloxy)nonanoylamino, 10-(carbonyloxy)decanoylamino,
- 11-(carbonyloxy)undecanoylamino, 12-(carbonyloxy)dodecylaminocarbonyl,
- 6-(3-propylenaminocarbonyloxy)hexylen, 6-(3-propylenoxy)hexylen,
- 6-(3-propylenoxy)hexyloxy, 6-(3-propylenaminocarbonyloxy)hexyloxy,
- 6-(3-propylenaminocarbonyl)hexyl, 6-(3-propylenaminocarbonyl)hexyloxy,
- 2-(methylenoxy)ethyloxycarbonyloxy, 3-(methylenoxy)propyloxycarbonyloxy,
- 6-(methylenoxy)hexyloxycarbonyloxy, 2-(methylenoxycarbonyl)ethylen,
- 3-(methylenoxycarbonyl)propyloxycarbonyloxy,
- 6-(methylenoxycarbonyl)hexyloxycarbonyloxy, 6-(3-propylenoxycarbonyloxy)hexylen,
- 6-(3-propylenoxycarbonyl)hexylen, 2-(methylenaminocarbonyl)ethylen,
- 3-(methylenaminocarbonyl)propylen, 6-(methylenaminocarbonyl)hexylen,
- 6-(3-propylenaminocarbonyloxy)hexylen, 6-(3-propylenaminocarbonyl)hexylen,
- 4-{[6-(methylenoxy)hexyl]oxy}phenylen, 4-[6-(methylenoxy)hexyl]cyclohexylen,

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3-methoxy-4-{[6-(methylenoxy)hexyl]oxy}phenylen,

4-{[6-(methylenoxy)hexyl]oxy}phenylcarbonyloxy,

4-[6-(methylenoxy)hexyl]cyclohexanoyloxy,

3-ethoxy-4-{[8-(methylenoxy)octyl]oxy}phenylcarbonyloxy,

4-[3-(carbonyloxy)propyl]phenylen, 4-[6-(carbonyloxy)hexyl]phenylen,

4-[6-(carbonyloxy)hexyl]cyclohexylen, 3-methoxy-4-[6-(carbonyloxy)hexyl]phenylen,

4-[6-(carbonyloxy)hexyl]phenylcarbonyloxy, 4-[6-(carbonyloxy)hexyl]cyclohexanoyloxy,

3-ethoxy-4-[8-(carbonyloxy)octyl]phenylcarbonyloxy,

2-{4-4-{2-(methylenoxy)ethyl}cyclohexyl]phenyl}ethoxy, 1-[4'-{[4-(methylenoxy)butyl]oxy}-

1,1'biphenyl-4-yl]carbonyloxy, 1-{4-[4-{2-(methylenoxy)ethoxy}phenyl}methyloxy,

2-{4-[4-(2-carbonyloxyethyl) cyclohexyl]phenyl}ethoxy, 2-[4'-(4-

 $carbonyloxybutyl) \hbox{-} 1,1'biphenylen-4-yl] ethoxy, 6-\{4-[4-(2-carbonyloxyethyl)phenyl\} hexyloxy, and be a substitution of the control of t$

and 5-{[4'-[4-(methylenoxy)butoxy)]-1,1'-biphenyl-4-yl]oxy} pentanoyloxy-and the like.

33. (currently amended): Diamine compounds according to claim 22, wherein S³ is selected from -CO-O-, -CO-NR¹-, -CO-, a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by fluorine, chlorine, or cyano, having 1 to 24 carbon atoms, and a straight-chain or branched alkylene group which is unsubstituted, mono or poly-substituted by fluorine, chlorine, or cyano, having 1 to 24 carbon atoms, wherein one or more -CH₂- groups may is independently be replaced by a group J, with the proviso that oxygen atoms are not directly attached to each other, wherein R¹ represents a hydrogen atom or lower alkyla straight chain or branched hydrocarbon radical having from 1 to 6 carbon atoms.

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34. (previously presented): Diamine compounds according to claim 22, wherein S³ is selected from a single covalent bond, $-(CH_2)_{r^-}$, $-CO-(CH_2)_{r^-}$, $-CO-(CH_2)_{r^-}$, $-CO-(CH_2)_{r^-}$, $-CO-(CH_2)_{r^-}$, $-(CH_2)_{r^-}$, and $-CO-(CH_2)_{s^-}$, and $-CO-(CH_2)_{s^-}$, wherein R¹ is as defined herein above; r and s each represent an integer from 1 to 20; and r + s ≤ 21 .

(currently amended): Diamine compounds according to claim 22, wherein S³ 35. include 1,2-ethylen, 1,3-propylen, 1,4-butylen, 1,5-pentylen, 1,6-hexylen, 1,7-heptylen, 1,8-octylen, 1,9-nonylen, 1,10-decylen, 1,11-undecylen, 1,12-dodecylen, 3-methyl-1,4-butylen, 2-(methylenoxy)ethylen, 3-(methylenoxy)propylen, 4-(methylenoxy)butylen, 5-(methylenoxy)pentylen, 6-(methylenoxy)hexylen, 7-(methylenoxy)heptylen, 8-(methylenoxy)octylen, 9-(methylenoxy)nonylen, 10-(methylenoxy)decylen, 11-(methylenoxy)undecylen, 12-(methylenoxy)dodecylen, 2-(carbonyloxy)ethylen, 3-(carbonyloxy)propylen, 4-(carbonyloxy)butylen, 5-(carbonyloxy)pentylen, 6-(carbonyloxy)hexylen, 7-(carbonyloxy)heptylen, 8-(carbonyloxy)octylen, 9-(carbonyloxy)nonylen, 10-(carbonyloxy)decylen, 11-(carbonyloxy)undecylen, 12-(carbonyloxy)dodecylen, 2-(carbonylamino)ethylen, 3-(carbonylamino)propylen, 4-(carbonylamino)butylen, 5-(carbonylamino)pentylen, 6-(carbonylamino)hexylen, 7-(carbonylamino)heptylen, 8-(carbonylamino)octylen, 9-(carbonylamino)nonylen, 10-(carbonylamino)decylen, 11-(carbonylamino)undecylen, 12-(carbonylamino)dodecylen, 6-(3-propylenaminocarbonyloxy)hexylen, 6-(3-propylenoxy)hexylen, 6-(3-propylenaminocarbonyl)hexyl, 2-(methylenoxycarbonyl)ethylen,

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6-(3-propylenoxycarbonyloxy)hexylen, 6-(3-propylenoxycarbonyl)hexylen,

2-(methylenaminocarbonyl)ethylen, 3-(methylenaminocarbonyl)propylen,

6-(methylenaminocarbonyl)hexylen, 6-(3-propylenaminocarbonyloxy)hexylen,

6-(3-propylenaminocarbonyl)hexylen, 4-{[6-(methylenoxy)hexyl]oxy}phenylen,

4-[6-(methylenoxy)hexyl]cyclohexylen, 3-methoxy-4-{[6-(methylenoxy)hexyl]oxy}phenylen,

4-[3-(carbonyloxy)propyl]phenylen, 4-[6-(carbonyloxy)hexyl]phenylen, and

4-[6-(carbonyloxy)hexyl]cyclohexylen, 3-methoxy- 4-[6-(carbonyloxy)hexyl]phenylen-and the like.

- 36. (previously presented): Diamine compounds according to claim 22, wherein Q is an oxygen atom or -NH-.
- 37. (previously presented): Diamine compounds according to claim 22, wherein Q is an oxygen atom.
- 38. (previously presented): Diamine compounds according to claim 22, wherein X and Y represent hydrogen.
- 39. (previously presented): Diamine compounds according to claim 22, wherein the photoactive groups are groups of formula IIIa.
- 40. (previously presented): Method of using a diamine compound according to claim 22, comprising providing the diamine compound as precursor for the production of liquid crystal alignment layers.
- 41. (previously presented): A liquid crystal orientation material obtained by the reaction of a diamine compound of general formula I:

I

$$H_2N$$
 A^1
 A^2
 NH_2

wherein

- A¹ represents an organic group of 1 to 40 carbon atoms;
- A² represents a hydrogen atom or an organic group of 1 to 40 carbon atoms.
 - 42. (canceled).
 - 43. (canceled).
 - 44. (canceled).
 - 45. (canceled).
 - 46. (canceled).
 - 47. (canceled).
 - 48. (canceled).
 - 49. (canceled).
 - 50. (canceled).
 - 51. (canceled).
 - 52. (canceled).
 - 53. (canceled).
 - 54. (canceled).
 - 55. (canceled).
 - 56. (canceled).
 - 57. (canceled).
 - 58. (canceled).

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59. (canceled).

- 60. (canceled).
- 61. (canceled).
- 62. (canceled).
- 63. (canceled).
- 64. (canceled).
- 65. (canceled).
- 66. (canceled).
- 67. (canceled).